

## Project Evaluation

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### F-9-R-12 Job I. Inventory of the Waters of the Project Area.

The purpose of the lake and stream inventory is to determine the physical, chemical, and biological characteristics of the waters of importance to the recreational fishery of the project area. Included in the waters to be surveyed are some that are presently receiving, or that may receive liberations of hatchery fish. Also included will be waters receiving or needing special management procedures. The data from the inventory forms a large portion of the basis for fishery management.

The completeness of any survey depends upon the time available and the characteristics of the body of water. In the past, attempts were hastily made to survey all waters, and as a result, basic information is still lacking on most streams and a few lakes. The usual survey should include the following information:

1. Widths, volume of flows, and depths for streams; areas and depths for lakes.
2. Drainage, shoreline, bottom type, and other physical characteristics from field observations.
3. Water temperature data when feasible.
4. Water chemistry data where desirable and feasible.
5. Natural reproduction and/or its potential.
6. Fish species present, and their abundance determined. Samples for age and growth data collected when desirable.
7. Existing or potential fisherman use.
8. The status of access to a particular water.

We could use detailed information on all waters, but manpower limitations and the large expanse of land and waters make it physically impossible to completely survey all water as desired. Therefore, most effort is

placed on the most important and potential fishing waters.

Our important lakes and reservoirs have been surveyed at least once and the information is recorded on file in the District and Helena offices. The worker investigating one of these waters can check the files to see what work has been done before going into the field. New information is added to the file as needed.

Stream and river survey data is lacking in many areas. Since wild trout provide the bulk of our stream fishery, more emphasis will be placed on streams than in the past. Improved fish collecting equipment and techniques will greatly supplement information desired. For example, last year our stream survey work was concentrated on five streams and two rivers and all contained fair to excellent wild trout populations in areas available to anglers. By studying the same areas of these streams and rivers periodically, we will have the information to apply proper management procedures. Another phase of the stream survey involved evaluating returns of hatchery trout to anglers.

Surveys are not cut and dried processes and must be adjusted to fit the situation. This project is worthwhile since it provides us with most of the information needed for successful management of the waters in the project area.